

Appl. No. 10/800,455  
Atty. Docket No.: 2004B019

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DEC 13 2007

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listing of claims in this application.

**Listing of Claims:**

1.-13. (Canceled)

14. (Previously Presented): A nanocomposite, comprising:

a) at least one first non-functionalized polypropylene present in the nanocomposite at from  $\geq 10$  to  $\leq 98$  wt%, based on the total weight of the nanocomposite, said first non-functionalized polypropylene having an Mw/Mn of 1.8 to 3;

b) at least one second polypropylene comprising stabilization functionality, said stabilization functionality selected from one or more of phenols, ~~ketones, hindered amines,~~ substituted phenols, ~~substituted ketones, substituted hindered amines,~~ or combinations thereof, and said stabilization functionality being present in said stabilization functionalized polypropylene from  $\geq 0.05$  to  $\leq 15$  wt%, based on the total weight of said of the polypropylene comprising stabilization functionality, where the second polypropylene comprising stabilization functionality is present in said nanocomposite at from  $\geq 10$  to  $\leq 90$  wt. %, based on the total weight of the nanocomposite;

c) an organo-clay selected from one or more of montmorillonite, sodium montmorillonite, calcium montmorillonite, magnesium montmorillonite, nontronite, beidellite, volkonskoite, laponite, hectorite, saponite, sauconite, magadite, kenyaite, sobockite, svindordite, stevensite, vermiculite, halloysite, aluminate oxides, hydrotalcite, illite, rectorite, tarosovite, ledikite or fluorine mica, and wherein said organo-clay is present in said nanocomposite from  $\geq 1$  or  $\leq 30$  weight %, based on the total weight of the nanocomposite, and where the nanoclay further comprises one or more of hexyl ammonium ion, octyl ammonium ion, 2-ethylhexyl ammonium ion, dodecyl ammonium ion, octadecyl ammonium ion, dioctyl dimethyl ammonium ion, trioctyl ammonium ion, distearyl ammonium ion, ammonium salt, pyridinium salt, sulfonium salt, phosphonium salt; and

d) optionally, an ethylene-propylene elastomeric copolymer or an isobutylene rubber present in the nanocomposite at  $\geq 2$  to  $\leq 70$  wt%, based on the total weight of the nanocomposite.

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15. (cancelled):

16. (cancelled)

17. (Original): A fabricated article comprising the nanocomposite of claim 14.

18. (cancelled):

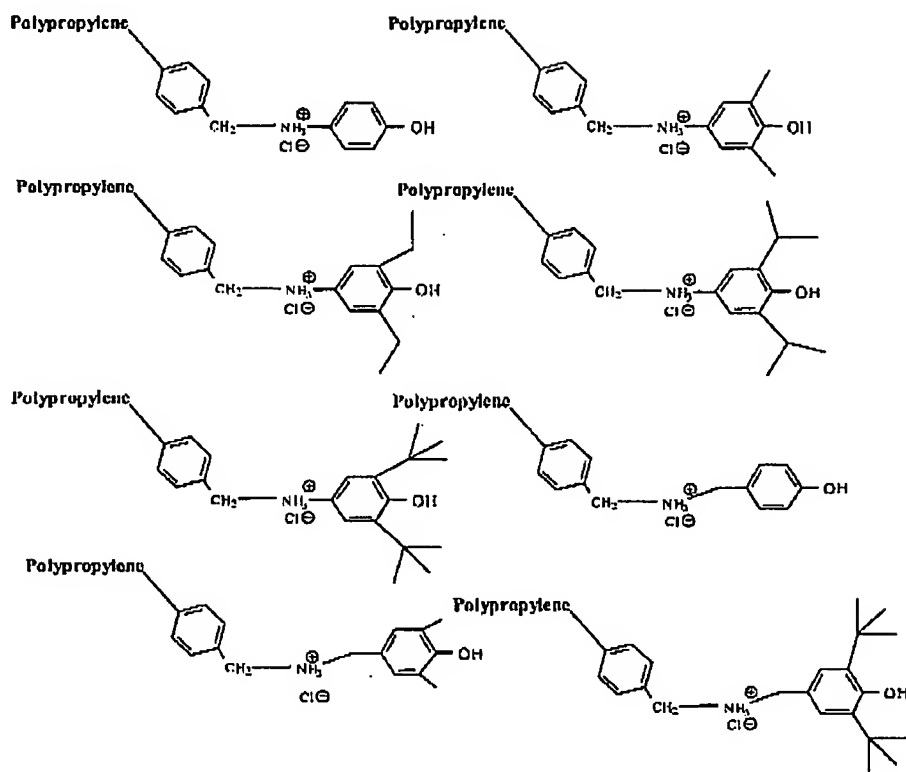
19. (Original): An automotive part or an appliance part comprising the nanocomposite of claim 14.

20. (cancelled):

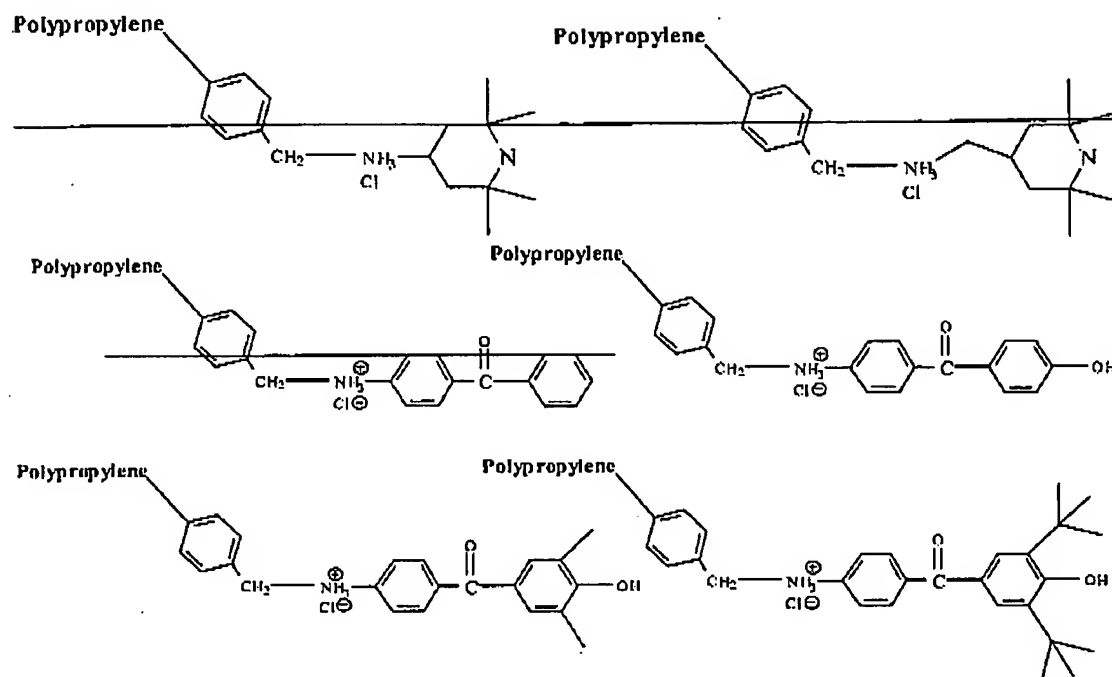
21. (Currently Amended) The blend of Claim 14 ~~15~~ wherein the at least one stabilization ~~functionionalized~~ functionalized thermoplastic polyolefin is selected from the group consisting of:

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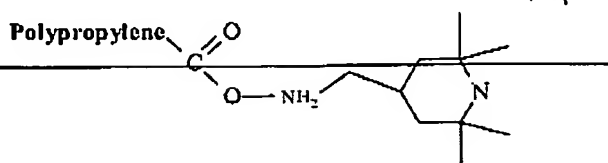
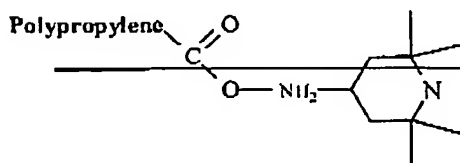
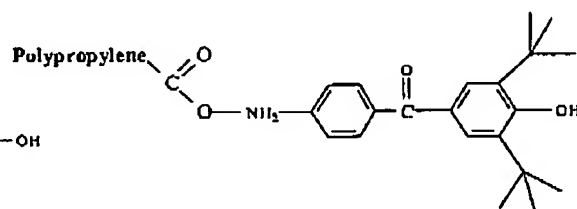
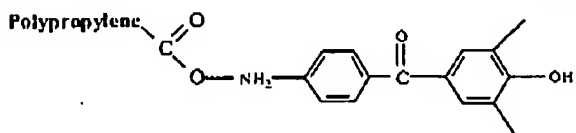
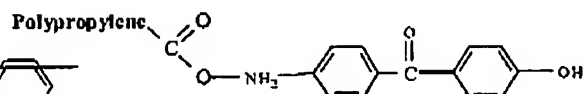
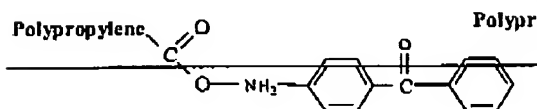
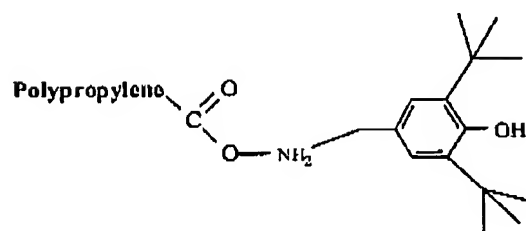
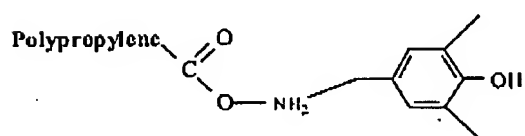
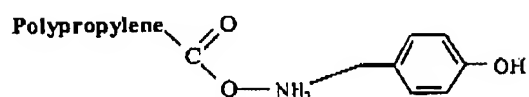
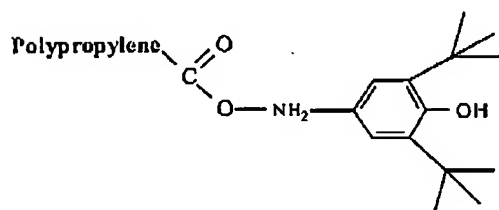
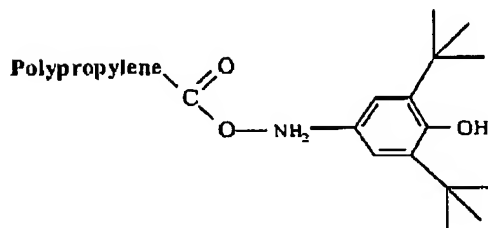
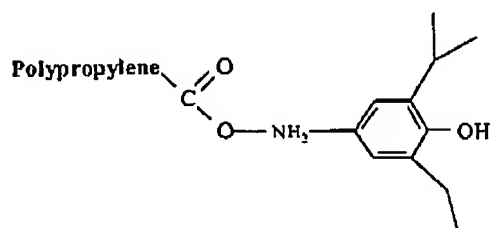
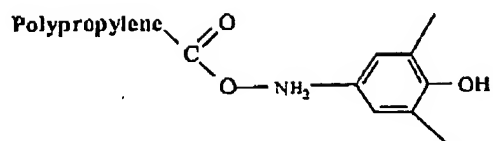
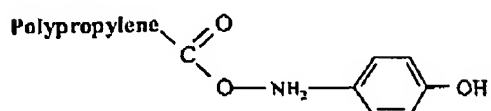


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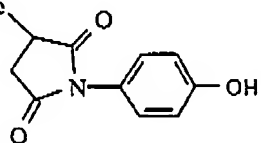
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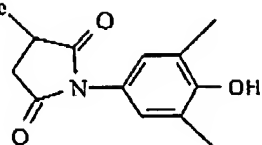
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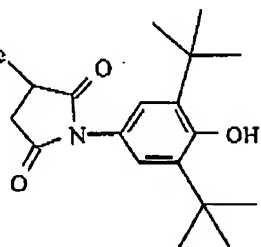
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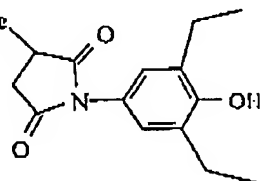
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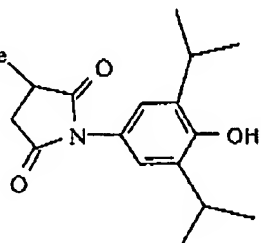
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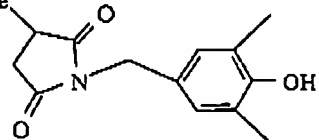
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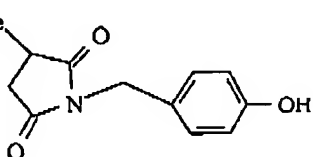
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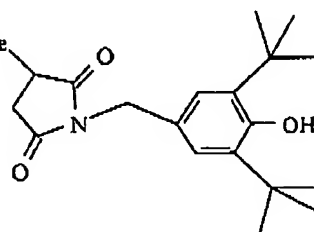
Polypropylene



Polypropylene

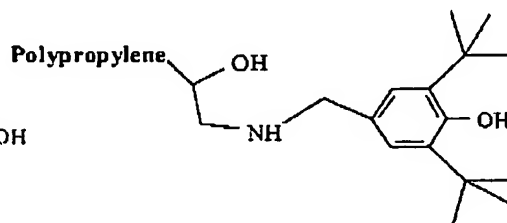
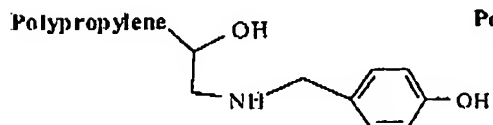
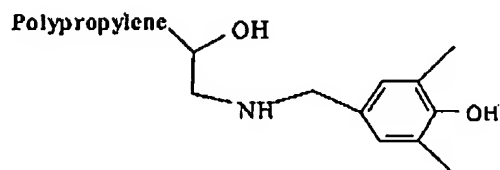
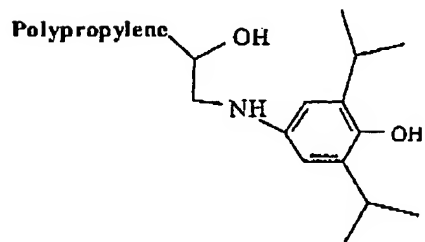
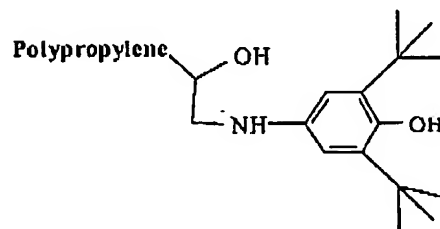
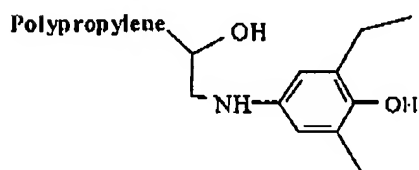
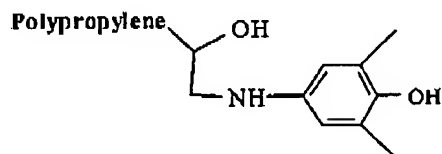
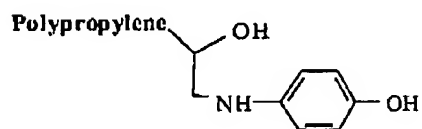
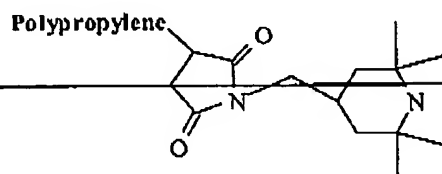
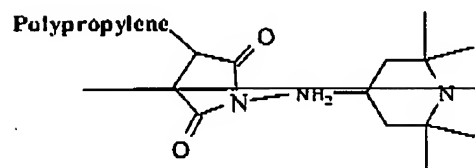
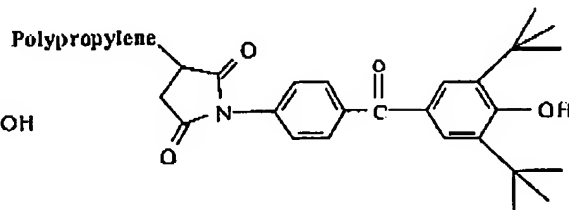
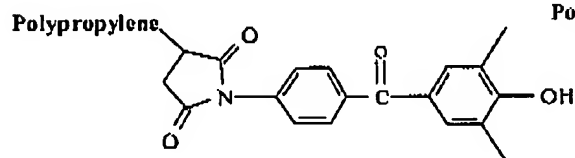
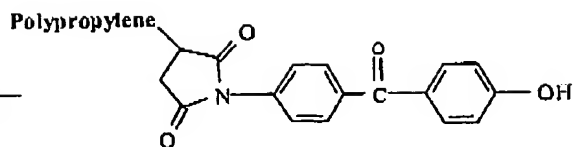
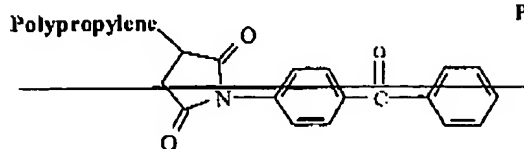


Polypropylene

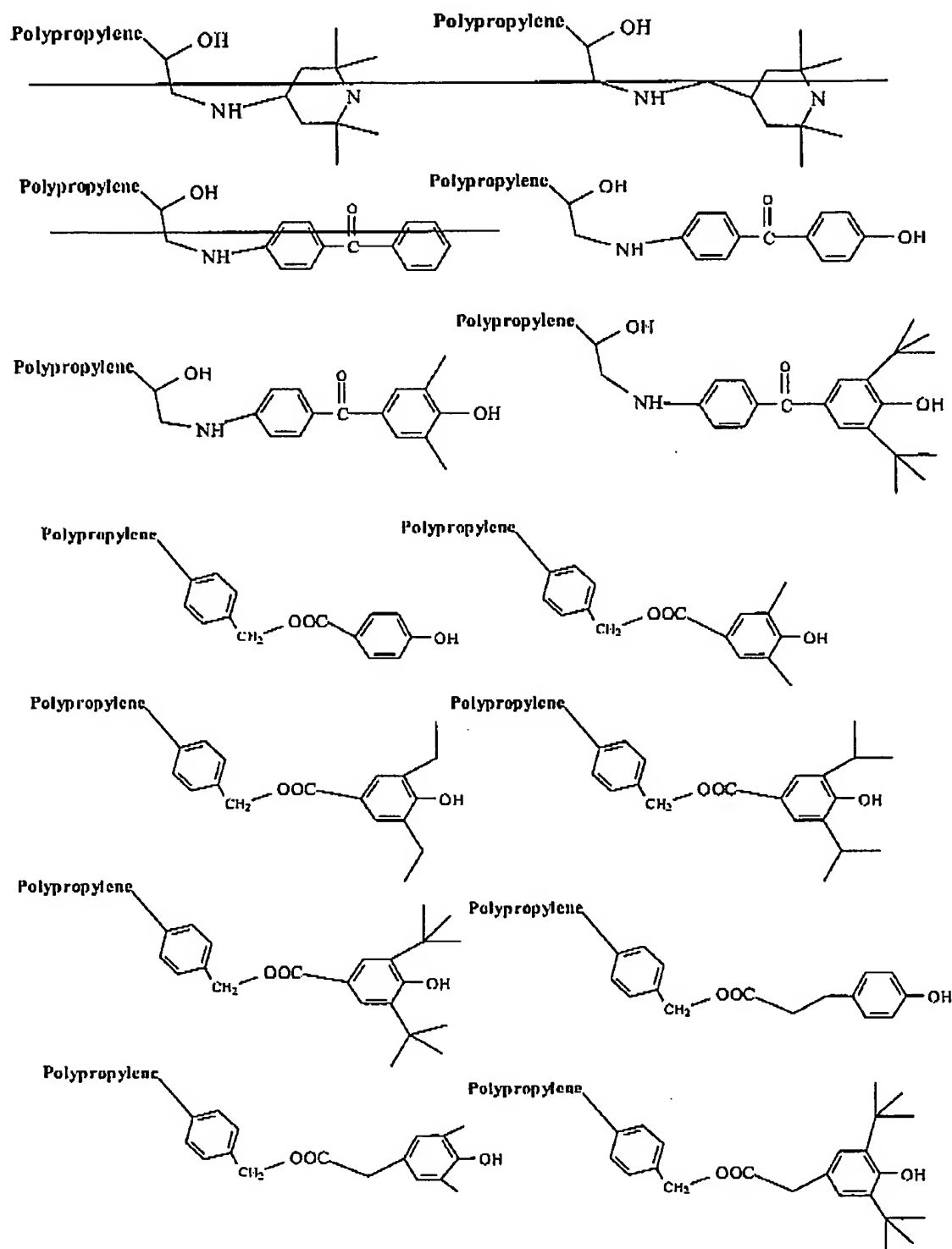


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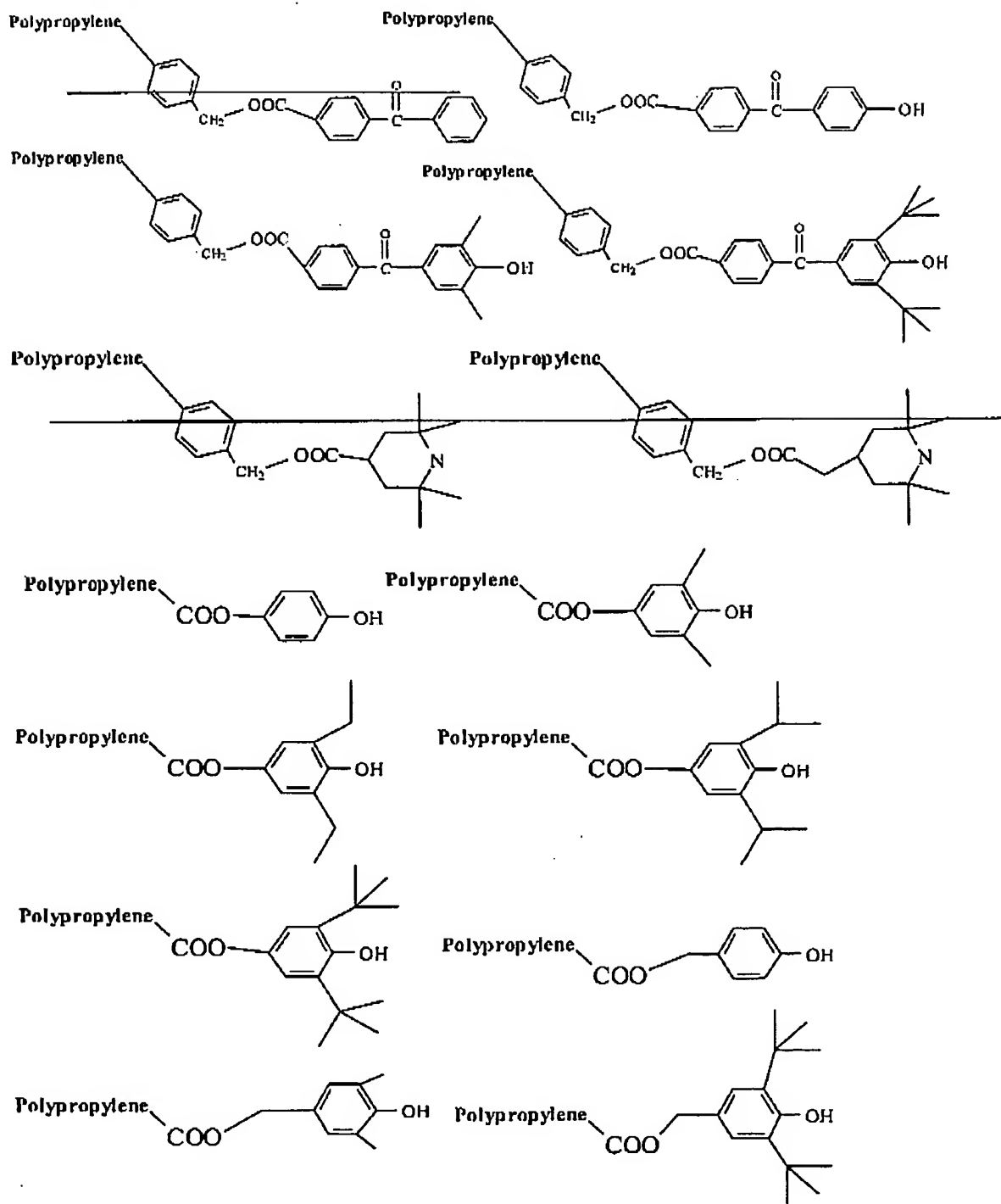
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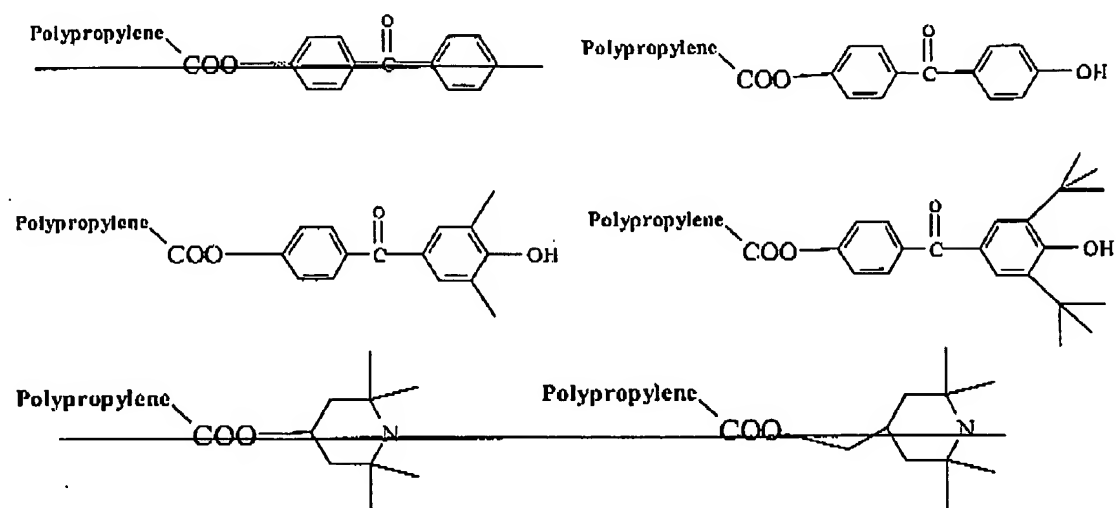
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22. (New) The nanocomposite of claim 14, wherein the heat aged failure of a molded sample of said nanocomposite is at least 10% higher than a reference nanocomposite comprising the same elements except that the thermoplastic polyolefin is substantially free of stabilization functionality.